Background

The incidence of invasive fungal infections (IFI) is increasing worldwide. While the etiology of this development has not been completely understood, evermore invasive medical care as well as increasing numbers of long-term immunocompromised patients are considered major contributing factors. A wide variety of so-called “emerging fungi” accounts for a significant proportion of IFI. Data on their epidemiology, pathogen biology and clinical course is scarce, often impeding evidence-guided decision making in the clinical setting. To overcome these difficulties and eventually improve patient care, Fungiscope™ – Global Emerging Fungal Infection Registry has been created in 2003.

Methods

- Filing epidemiological and clinical data of patients with emerging fungal infections in an online database
- Quality control by medical documentation specialist and infectious disease specialists
- FungiThek: Biobanking and reference analysis of cultured isolates and tissue samples, as well as exchange with other centers for research projects
- FungiQuest: A free-of-charge search engine of the Fungiscope database
- Therapeutic antifungal drug monitoring
- Inclusion criteria: Cultural, histopathological, antigen or molecular biologic evidence of IFI
- Exclusion criteria: Colonization or infections due to Aspergillus spp., Candida spp., Cryptococcus neoformans, Pneumocystis jiroveci and any endemic fungal infection
- The registry is open to everybody wishing to contribute a case of an emerging fungal infection

Results

The publication by D. Seidel et al., Blood 2015, 125, 3315-3325, titled “An epidemiological and clinical study of emerging fungal infections in hematopoietic stem cell transplantation patients” provides a comprehensive overview on emerging fungal infections in hematopoietic stem cell transplantation (HSCT) patients.

Conclusions

- Efficient method for collecting patient information: 470 cases of rare IFI have been documented from 24 countries and to date, 411 cases are verified by the Fungiscope quality control team
- Immediate diagnostic and therapeutic services
- Data provide a comprehensive view on the epidemiology and clinical presentation of rare IFI

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